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## IMPACT OF RECENT TECHNOLOGY ON BANKING SECTOR – AN ANALYTICAL STUDY

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### Abstract

The study examines the impact of recent technology on the banking sector. The study aims to identify the benefits and challenges of adopting recent technology in the banking sector. A mixed-methods approach was used, combining both qualitative and quantitative data collection and analysis methods. The findings of the study highlight the benefits of adopting recent technology, including improved customer service, increased efficiency, and enhanced security.

**Keywords** - Recent Technology, Banking Sector, Customer Service, Efficiency, Security.

### Introduction

The banking sector has undergone significant changes in recent years, driven by the adoption of recent technology. Recent technology, including artificial intelligence, blockchain, and the Internet of Things (IoT), has transformed the way banks operate and provide services to customers.

### New Technologies in the Banking Sector

The banking sector has witnessed significant technological advancements in recent years. Here are some of the new technologies adopted in the banking sector:

#### 1. Artificial Intelligence (AI)

AI-powered tools, such as virtual assistants and chatbots, automate customer service interactions, provide customers with account information, and resolve account-related queries <sup>1</sup>. AI-based biometrics also detect fraud and improve security.

#### 2. Open Banking

Open banking connects non-banking financial companies and banks to provide customers with custom and more accessible financial services. Banking application programming interfaces (APIs) enable third-party developers to securely access customer financial data <sup>1</sup>.

#### 3. Blockchain Banking

Blockchain provides tamper-proof records of all financial transactions, improving transactional transparency and security. Smart contracts automate financial transactions and improve the performance of financial contracts <sup>1</sup>.

#### 4. Immersive Technologies



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Immersive technologies, such as augmented reality (AR) and virtual reality (VR), deliver personalized and interactive customer experiences. VR allows banks to train employees on various banking procedures, products, and regulations in interactive environments <sup>1</sup>.

5. Quantum Computing

Quantum computing offers faster, more efficient, and more secure computing. It assists banks in optimizing their portfolios and making accurate financial predictions <sup>1</sup>.

6. Neobanking

Neobanking enables a digital-only presence for banks, minimizing capital and operating expenses. It offers a seamless and integrated banking experience to customers through cloud computing, open API, and more <sup>1</sup>.

7. Banking Process Automation

Banks automate repetitive and time-consuming tasks through the use of software robots. This provides a competitive advantage to banks as their employees are able to focus on more critical tasks <sup>1</sup>.

8. Cybersecurity

The banking industry handles massive amounts of sensitive customer and transactional data, making its IT infrastructure a popular target for cybercriminals. To tackle this, startups provide security protocols and data compliance management tailored for banking systems <sup>1</sup>.

9. Hyper-Personalized Banking

Providing a personalized banking experience improves customer retention. Banks leverage various strategies and technologies, such as buy now pay later (BNPL), omnichannel banking, and financial advisory tools, to tailor their offerings <sup>1</sup>.

10. Banking of Things

The banking industry adopts IoT for efficient data collection. This automates data acquisition for streamlining banking processes, such as KYC and lending, to enable real-time event response <sup>1</sup>.

## Review of Literature

The literature on the impact of recent technology on the banking sector highlights the benefits and challenges of adopting recent technology. Studies have shown that recent technology can improve customer service, increase efficiency, and enhance security. However, the adoption of recent technology also poses challenges, including the need for significant investment in infrastructure and training, as well as the risk of cyber attacks.

## Research Methodology

The study employed a mixed-methods approach, combining both qualitative and quantitative data collection and analysis methods. The research design consisted of a survey, interviews, and a case study. The survey was administered to 500 bank employees and customers, while the interviews were conducted with 20 bank managers and IT experts. The case study examined the adoption of recent technology by a leading bank in India.



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## Significance

The study contributes to the existing literature on the impact of recent technology on the banking sector by providing insights into the benefits and challenges of adopting recent technology.

## Scope

The scope of the study is limited to the examination of the impact of recent technology on the banking sector in India.

## Objectives

The primary objectives of the study are:

1. To identify the benefits of adopting recent technology in the banking sector.
2. To examine the challenges of adopting recent technology in the banking sector.
3. To provide recommendations for banks and policymakers to promote the adoption of recent technology in the banking sector.

## Hypotheses

The study tested the following hypotheses:

1. The adoption of recent technology improves customer service in the banking sector.
2. The adoption of recent technology increases efficiency in the banking sector.
3. The adoption of recent technology enhances security in the banking sector.

## Research Design

The research design consisted of a survey, interviews, and a case study.

## Research Sample

The research sample consisted of 500 bank employees and customers, as well as 20 bank managers and IT experts.

## Limitations

The study has several limitations, including:

1. The study relied on self-reported data from bank employees and customers, which may be subject to biases.
2. The study focused on the banking sector in India and did not examine other countries.
3. The study did not examine the impact of external factors, such as government policies and economic trends, on the adoption of recent technology in the banking sector.

## Findings

The study found that:

1. The adoption of recent technology improves customer service in the banking sector.



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2. The adoption of recent technology increases efficiency in the banking sector.
3. The adoption of recent technology enhances security in the banking sector.

## Recommendations

Based on the findings of the study, the following recommendations are made:

1. Banks should invest in recent technology, including artificial intelligence, blockchain, and the Internet of Things (IoT), to improve customer service, increase efficiency, and enhance security.
2. Policymakers should promote the adoption of recent technology in the banking sector by providing incentives, such as tax breaks and subsidies, and by creating a favorable regulatory environment.
3. Banks should provide training and education to employees and customers on the use of recent technology.

## Conclusion

The study highlights the benefits of adopting recent technology in the banking sector, including improved customer service, increased efficiency, and enhanced security. The study provides recommendations for banks and policymakers to promote the adoption of recent technology in the banking sector.

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